

Datasheet for #sbcw24272 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative bias and positive bias on the specific zones drawn below. To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.



Figure 1: Mechanical and electrical interface for #sbcw24272 DN (please note that AlN submount numbering is A0ZUH)

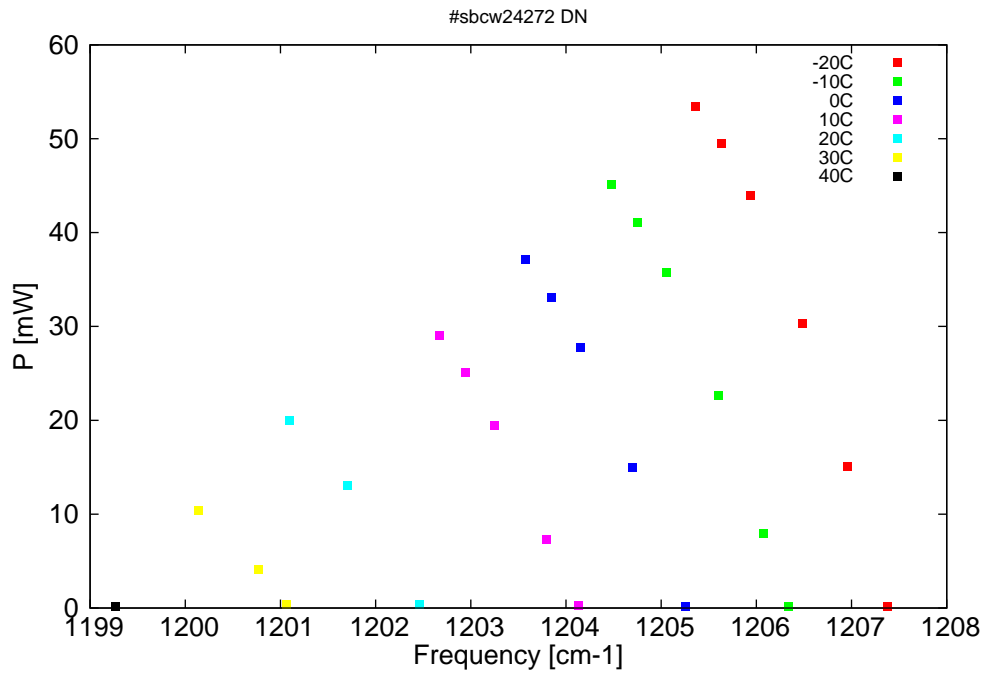


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

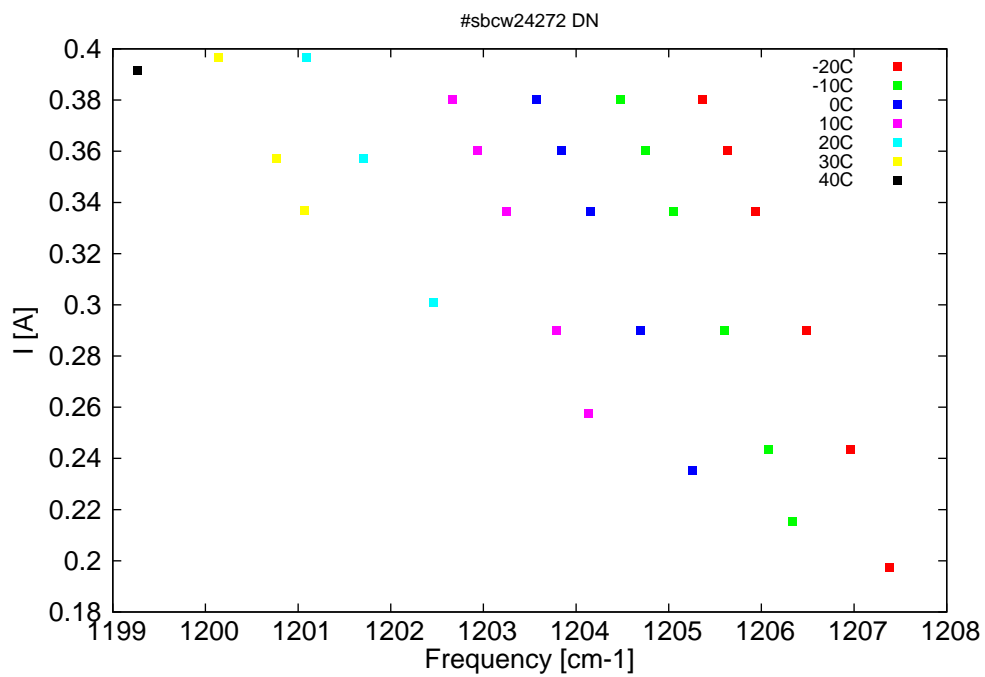


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
8282.4	1207.4	0.2	-20	8.77	0.197
8285.3	1207	15.1	-20	9.45	0.244
8288.6	1206.5	30.3	-20	10.13	0.29
8292.3	1205.9	43.9	-20	10.8	0.337
8294.4	1205.6	49.5	-20	11.13	0.36
8296.3	1205.4	53.5	-20	11.39	0.38
8289.5	1206.3	0.2	-10	8.82	0.215
8291.3	1206.1	7.9	-10	9.2	0.244
8294.6	1205.6	22.7	-10	9.83	0.29
8298.4	1205.1	35.7	-10	10.45	0.336
8300.5	1204.7	41	-10	10.76	0.36
8302.4	1204.5	45.1	-10	11.01	0.38
8297	1205.3	0.2	0	8.87	0.235
8300.8	1204.7	14.9	0	9.56	0.29
8304.6	1204.2	27.7	0	10.13	0.336
8306.7	1203.8	33.1	0	10.43	0.36
8308.6	1203.6	37.2	0	10.66	0.38
8304.7	1204.1	0.2	10	8.95	0.258
8307.1	1203.8	7.3	10	9.33	0.29
8310.9	1203.2	19.5	10	9.86	0.336
8313	1202.9	25.1	10	10.12	0.36
8314.8	1202.7	29	10	10.35	0.38
8316.2	1202.5	0.4	20	9.23	0.301
8321.5	1201.7	13	20	9.83	0.357
8325.8	1201.1	20	20	10.24	0.397
8325.9	1201.1	0.3	30	9.41	0.337
8328	1200.8	4.1	30	9.61	0.357
8332.4	1200.1	10.3	30	10	0.397
8338.4	1199.3	0.2	40	9.74	0.392

Table 1: Singlemode optical output power as function of operating parameters.

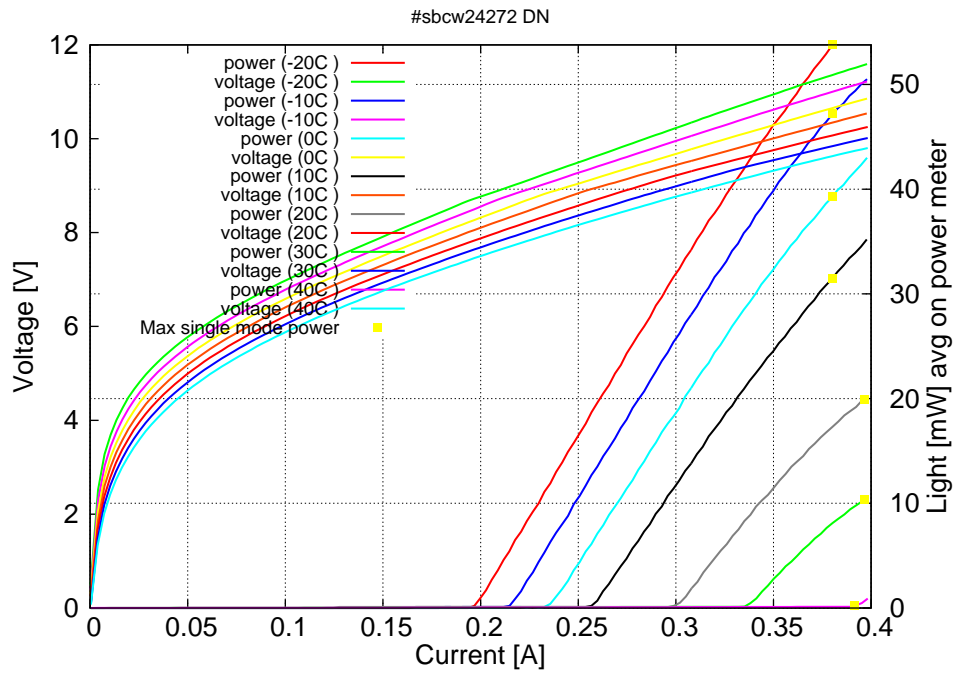


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -20C: $I_{th}=0.19A$ / $V_{th}=8.7V$ (2-wires measurements). Maximum operation current: 0.38A between -20C and 10C, 0.40A between 20C and 40C.

Figure 3: spectra at different temperatures for various DC currents

